

## BLACK ROCK MINING CONFIRMS INDUSTRY-LEADING EASE OF PROCESSING, GRADE AND FLAKE SIZES FOR MAHENGE GRAPHITE PROJECT

### HIGHLIGHTS

- SGS Lakefield processed 90 tonnes of Mahenge graphite ore comprising 50 tonnes from Cascades and 40 tonnes from Ulanzi to produce approximately 10 tonnes of concentrate.
- Approximately 70% of the primary cleaning circuit for the Ulanzi product contained flake sizes above 80 mesh (180 microns)
- Primary cleaning delivered a 95% concentrate and a secondary cleaning circuit increased this to 97.5% with minimal flake degradation. Further increases in grade possible
- Black Rock Mining shipping the finished product to potential global customers and partners

**Tanzanian graphite developer Black Rock Mining Limited** (BKT: ASX) ("Black Rock" or "the Company") is pleased to report positive initial metallurgical test results from the pilot plant testing at SGS Lakefield in Canada for its 100%-owned Mahenge Graphite Project. A summary of the test results for the drill core and surface bulk sampling program from Ulanzi is presented below:

**Table 1 Ulanzi Pilot Plant Preliminary Data**

Size		% Retained Individual	Grade C (t) %	Distribution C (t) %
Mesh	um			
32	500	1.6	97.3	1.6
48	300	25.9	97.5	25.9
65	212	32.1	98.2	32.3
80	180	16.3	97.3	16.2
100	150	9.3	97.5	9.3
150	106	7.3	96.9	7.3
200	75	3	97.6	3
-200	-75	4.5	96.4	4.4
<b>Total (calc)</b>		<b>100</b>	<b>97.6</b>	<b>100</b>
<b>Total (direct)</b>			<b>97.1</b>	
<b>K<sub>80</sub></b>		<b>354</b>		

### Black Rock Mining's CEO John de Vries commented:

"For our Mahenge Graphite Project to be able to produce a premium-sized product, better than 97.5% carbon LOI (Loss on Ignition) straight off a three-stage F circuit is simply stunning. The relatively small amount of polishing required to produce the premium product is particularly outstanding. This allows Black Rock to preserve graphite flakes and target higher value markets where purity and size attract a premium price."

"We believe through the consistent delivery of outstanding results and progress, Mahenge is demonstrating itself as the best undeveloped graphite project available globally."

**Black Rock Mining Ltd**  
ACN 094 551 336  
ASX: BKT

**Issued Capital**  
443m Shares  
67.2m Options  
2.4m Performance  
Rights

**Australian Registered Office**  
Level 1, 35 Havelock Street  
West Perth, WA 6005  
Ph: +61 8 9320 7550  
E: info@blackrockmining.com.au

**Tanzanian Office**  
**Mahenge Resources Ltd**  
202 Village Walk Building  
Toure Drive, PO Box 80003  
Dar es Salaam Tanzania

**Directors**  
Richard Crookes  
John de Vries  
Stephen Copulos  
Gabriel Chiappini

## Pilot Plant Testworks

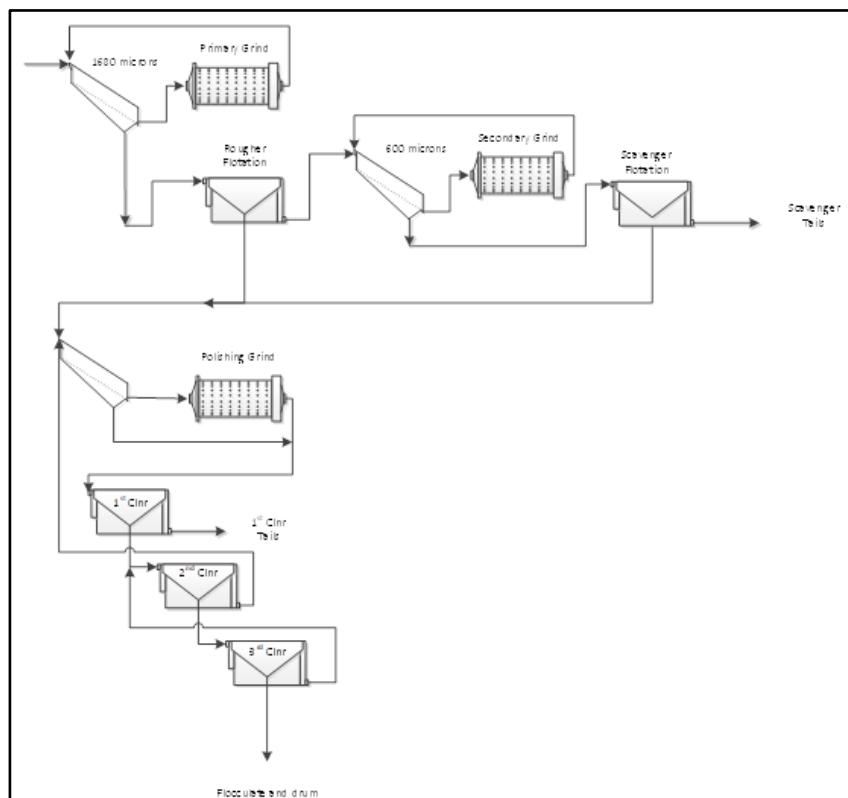
SGS Lakefield in Canada has completed the pilot plant testworks, processing 90 tonnes of Mahenge ore, comprising 50 tonnes from Cascades and 40 tonnes from Ulanzi. Mechanical commissioning was completed on 21 March 2018 with primary circuit processing completed on 5 April 2018. Average feed rates were one tonne per hour when operating.

## Flow Sheet Development

Metallurgical flowsheet development focussed on the Ulanzi ore given this compromises the first two phases of the mine's operations, achieving plant operation at about 165k tonnes per annum.

Nearly 70% of the primary cleaning circuit for the Ulanzi product contained flake sizes of over 80 mesh (180 microns). The secondary cleaning circuit upgraded the +80 mesh portion of the intermediate graphite concentrate from 95% C(t) to an average of 97.5% C(t) with minimal flake degradation. The composition of a typical graphite concentrate that was generated in the secondary cleaning circuit for the coarse product is shown in Table one above.

The ability to trial, and then compare flow sheet options in the pilot plant allows for flowsheet optimisation. Optimisation is critical for improved capital and operating costs that should deliver a significant improvement in plant operations from the Optimised PFS. The primary circuit consisted of a rougher and flasher stage followed by a primary cleaning circuit. The two flowsheets used in the circuit are set out below.



**Figure 1. Single Circuit Flowsheet option**

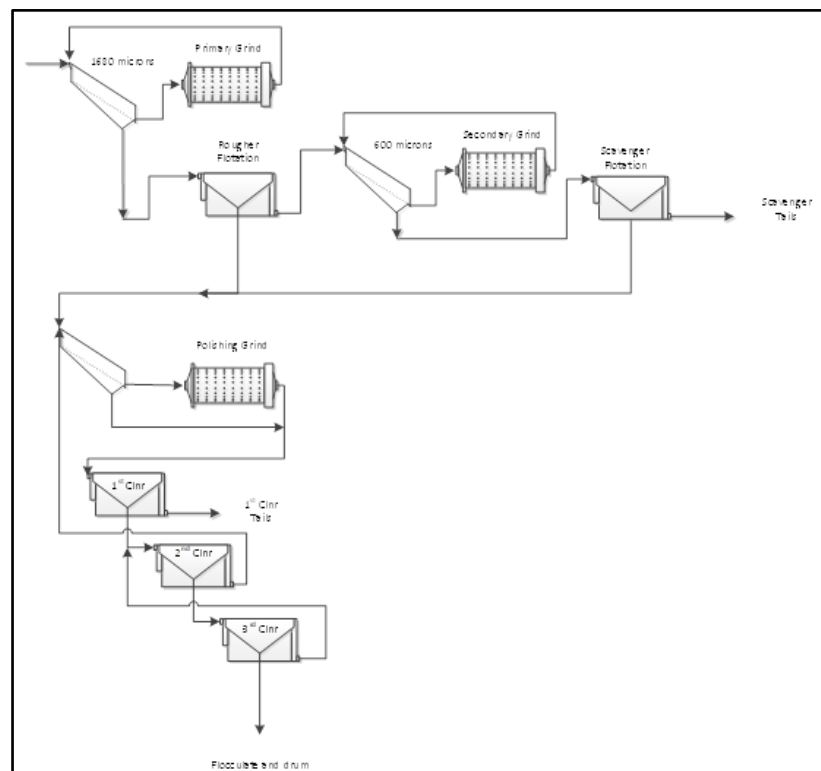


Figure 2. Split Circuit Flowsheet option

## Completion of Flow Sheet for DFS and Detailed Engineering

Black Rock will analyse data from the pilot plant run to determine the optimal flow sheet configuration. The laboratory optimisation program for the Ulanzi Oxide and Fresh Zones is ongoing and expected to be completed by the end of April.

The optimised flowsheet and operating conditions will be incorporated into the design of the 500-tonne pilot plant scheduled to commence Q3 calendar year 2018. The second pilot plant will also increase the volume of material available for pre-qualification of Mahenge product by end-users.

## Product Development and Partners

Importantly, the pilot plant has produced around 10 tonnes of concentrate that Black Rock is shipping to potential partners and customers. This is an important step in enabling pre-qualification test works and establishing the industry-leading quality of the Mahenge Graphite Project concentrate.

**For more information:**

John de Vries  
**Chief Executive Officer**  
**Black Rock Mining**

+61 438 356 590  
[jdv@blackrockmining.com.au](mailto:jdv@blackrockmining.com.au)

Simon Hinsley  
**Investor Relations**  
**NWR Communications**

+61 401 809 653  
[simon@nwrcommunications.com.au](mailto:simon@nwrcommunications.com.au)

## About Black Rock Mining

Black Rock Mining Limited is an Australian-based company listed on the Australian Securities Exchange. The Company owns graphite tenure in the Mahenge region of Tanzania.

The Company's 100%-owned Mahenge Graphite Project is one of the largest JORC-compliant flake graphite Mineral Resource Estimates globally, with a Mineral Resource Estimate of 211.9m tonnes at 7.8% TGC for 16.6m tonnes of contained graphite. Importantly, more than 50% of the Mineral Resource is in the Measured and Indicated categories.

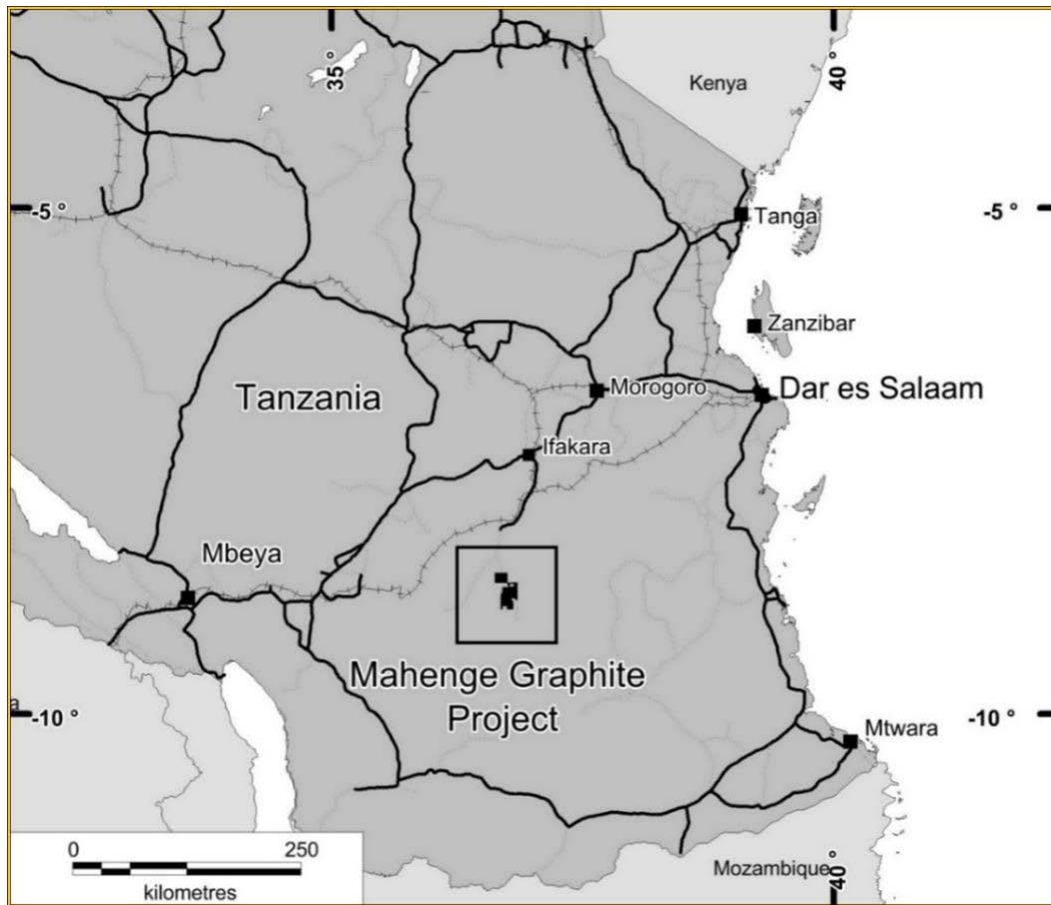
Black Rock released an exceptional optimised Preliminary Feasibility Study (PFS) for the Mahenge Graphite Project, which considered a three-stage construction to deliver up to 250,000 tonnes per annum of 98.5% graphite concentrate for 31 years. The Company plans to fund stages two and three from free cash flow. The pre-production capex is US\$90.1m to deliver a post-tax unlevered project NPV<sub>10</sub> of US\$905m incorporating the proposed 16% Government free carry and increased royalty rate.

The optimised PFS confirmed Black Rock has the potential for a long-life, low capex, high margin operation. Black Rock is moving towards commencing a Definitive Feasibility Study (DFS). Following the successful completion of the DFS and the associated financing, construction is expected to commence late-2018 with first production in 2019.

For further information on the Company's development pathway, please refer to the Company's website at the following link: <http://www.blackrockmining.com.au> and the corporate video presentation at <http://www.blackrockmining.com.au/#video>.

PROSPECT	CATEGORY	TONNES (MILLIONS)	TGC (%)	CONTAINED TGC (MILLIONS TONNES)
Ulanzi	Measured	13.3	8.9	1.2
	Indicated	49.7	8.2	4.1
	Inferred	50.2	8.1	4.1
	Sub-total	113.3	<b>8.2</b>	<b>9.3</b>
Epanko	Measured	12.1	8.3	1.0
	Indicated	20.8	8.3	1.7
	Inferred	27.3	7.9	2.2
	Sub-total	60.2	<b>8.1</b>	<b>4.9</b>
Cascades	Measured			
	Indicated	17.6	6.4	1.1
	Inferred	20.8	5.9	1.2
	Sub-total	38.4	<b>6.1</b>	<b>2.4</b>
COMBINED	MEASURED	25.5	<b>8.6</b>	<b>2.2</b>
	INDICATED	88.1	<b>7.9</b>	<b>6.9</b>
	INFERRED	98.3	<b>7.6</b>	<b>7.4</b>
	TOTAL	211.9	<b>7.8</b>	<b>16.6</b>

### Resource breakdown by prospect and total combined global resource



**Figure 3: Location of Black Rock's Mahenge Graphite Project within Tanzania**